## **Photovoltaics**

# **Solutions for rooftop photovoltaic systems**

Products for efficient system installation in commercial and residential buildings



# **Recommended solutions found quickly**

1 PV Next Combiner Box

2 PV Next Fireman Switch

3 PV Protect Surge Protection

4 AC SPD-Box

**PV** Accessories









Combining of PV strings Surge Protection Commercial Page 4 Page 10 Page 12 Page 14

PV Tools	
PV Connectors	Page 17
PV Labels and Markers	Page 18
PV Fuses	Page 19
PV Lightning and Surge Protection	Daga 20
Emergency power box for Fronius Primo GEN24 Plus	Pane 22

# **PV Next Combiner Box**

# Easy, fast, and safe wiring of photovoltaic systems

With PV Next, Weidmüller offers the world's first combiner box concept based on a standardised printed circuit board design. This concept is not only very robust, but also reduces the use of materials such as copper and plastic by 25%. At the same time, the design enables an easy, fast and safe installation. The integrated PUSH IN technology, for example, reduces installation times and minimises the risk of errors and the resulting consequences.

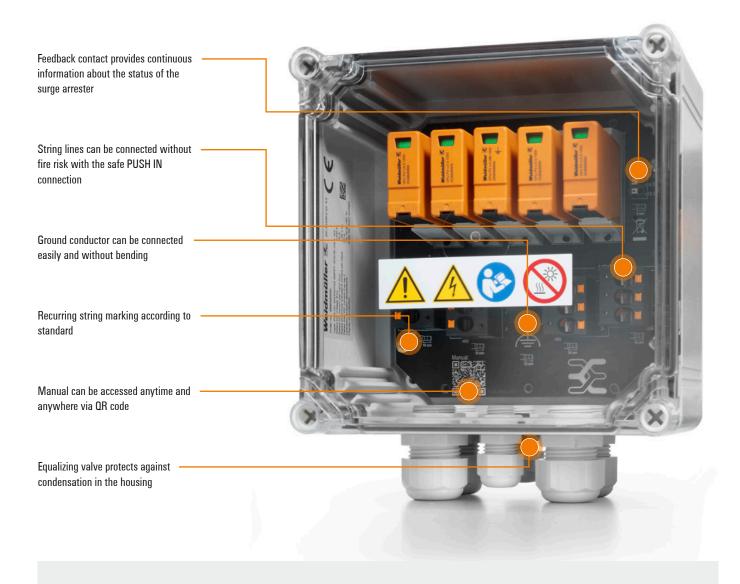
# Many different variants for commercial and residential buildings from stock

PV Next is protecting the PV system again overvoltages and reverse currents and also offers the possibility to combine strings. The various designs are done to protect all string inverters available in the European market.





## Standardised printed circuit board design – one design for all applications



#### The most innovative concept for string inverters



Tested according to IEC-61439-2 standard in accredited laboratory



Certified according to protection class IP65



High input current even at 50°C ambient temperature



Combination of strings saves time and wiring



3D data available online



Suitable variants for every installation type

# The right combiner box for your inverter type in just three steps

### Select your inverter type

Open our online selector via the QR code or short link to the right. Select the manufacturer and type of your inverter here. You will then receive a pre-selection of suitable products for your PV installation.

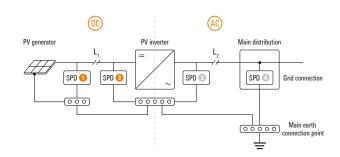


Here you can access the online selector, which provides the basis for your selection: www.weidmueller.com/pvselector

#### 2. Determine the standard-compliant surge protection

Answer the questions in the table below from left to right to determine what surge protection is needed on both the DC and AC sides for your installation. The diagramm maps:

(1) at the entry point of the PV cables into the building (inside or outside), (2) at or in the inverter (DC side), (3) at or in the inverter (AC side), (4) in the main distribution. If the cable length is more than 10 m, you need an additional overvoltage protection according to the standard EN 51643-32. Our PV Next combiner boxes protect the DC side of the installation. That's why they are highlighted here.



(B)	<u> </u>	< <u>DC</u> → 10	<	(0	OC)	A	C
Question 1:	Question 2:	Question 3:	Question 4:	Installatio	n locations	Installation	locations
External lightning protection system present?	Separation distance maintained?*	Cable length L <sub>1</sub> larger than 10 m?	Cable length L <sub>2</sub> larger than 10 m?	SPD 🕕	SPD 2	SPD 3	SPD 4
no	-	yes	yes	Type II DC	Type II DC	Type II AC	Type II AC
no	-	no	yes	-	Type II DC	Type II AC	Type II AC
no	-	yes	no	Type II DC	Type II DC	-	Type II AC
no	-	no	no	-	Type II DC	-	Type II AC
yes	yes	yes	yes	Type II DC	Type II DC	Type II AC	Type I AC
yes	yes	no	yes	-	Type II DC	Type II AC	Type I AC
yes	yes	yes	no	Type II DC	Type II DC	-	Type I AC
yes	yes	no	no	-	Type II DC	-	Type I AC
yes	no	yes	yes	Type I DC	Type I DC	Type I AC**	Type I AC
yes	no	no	yes	-	Type I DC	Type I AC**	Type I AC
yes	no	yes	no	Type I DC	Type I DC	-	Type I AC
yes	no	no	no	-	Type I DC	-	Type I AC

<sup>\*</sup>Between PV installation and external lightning protection, according to standard EN 51643-32.

<sup>\*\*</sup>If the inverter and the main distribution board are connected to the same grounding busbar via a grounding cable whose length does not exceed 0.5 m, no SPD is required at installation location "3".

3.

#### **Select your preferred connection type**

All PV Next variants are available with WM4 C ("Weidmüller connector"), MC4 EVO2 ("Stäubli connector") or CG ("classic cable gland") connection types. The housing interior has practical 16 mm² PUSH IN connections. Select the product variant with your preferred connection type in the selector.



Now that you have found the right product, you can send us your product request directly from the selector or order the part number from your trusted dealer.

#### Examples of the perfect combination\*

Here you will find common combinations for inverters from SMA, Fronius, SolarEdge and Huawai. You will find many other inverter manufacturers and types in our online selector.





SMA Sunny Tripower CORE1
6MPP, 2IN



**PV Next** Order No. 2737620000





Fronius Symo GEN24 Plus 2MPP, 2IN/1IN



**PV Next** Order No. 2866340000





SE3K 1MPP, 2IN



**PV Next** Order No. 2890560000





Huawei SUN2000-30/36/40KTL-M3 4MPP, 2IN



**PV Next** Order No. 2737610000

<sup>\*</sup>Variants for type I/II and WM4C connector; for further variants, go to our homepage at www.weidmueller.com/pv-perfect-match.



#### PV Next combiner boxes for commercial PV systems

Туре	MPP	Inputs per MPP	Outputs per MPP	Surge protection requirement class	Connection	Qty.	Order No.
No fuse holder, no switch disconnector				•			
PVN DC 3I 30 2MPP SPD1R CG 11	2 MPP	3 inputs	3 outputs	Type: I / II	Cable gland, PUSH IN connection	1	2890570000
PVN DC 3I 30 2MPP SPD1R WM4 11	2 MPP	3 inputs	3 outputs	Type: I / II	Connector, WM4C	1	2890450000
PVN DC 3I 30 2MPP SPD1R EVO 11	2 MPP	3 inputs	3 outputs	Type: I / II	Connector, MC4-Evo 2	1	2890330000
PVN1M3I9SXFXV100TXPX10	3 MPP	3 inputs	3 outputs	Type: I / II	Cable gland, PUSH IN connection	1	2683130000
PVN1M3I9SXFXV101TXPX10	3 MPP	3 inputs	3 outputs	Type: I / II	Connector, WM4C	1	2683190000
PVN1M4I8SXFXV100TXPX10	4 MPP	2 inputs	1 output	Type: I / II	Cable gland, PUSH IN connection	1	2737610000
PVN1M4I8SXFXV101TXPX10	4 MPP	2 inputs	1 output	Type: I / II	Connector, WM4C	1	2737600000
PVN1M6I12SXFXV100TXPX10	6 MPP	2 inputs	1 output	Type: I / II	Cable gland, PUSH IN connection	1	2737630000
PVN1M6I12SXFXV101TXPX10	6 MPP	2 inputs	1 output	Type: I / II	Connector, WM4C	1	2737620000
PVC 2I 10 10MPP SPD1R EVO 11	10 MPP	2 input	1 output	Type: I/II	Connector, MC4-Evo 2	1	8000106274
PVC 2I 2O 10MPP SPD1R EVO 11	10 MPP	2 input	2 outputs	Type: I/II	Connector, MC4-Evo 2	1	8000107559
PVC 2I 10 12MPP SPD1R EVO 11	12 MPP	2 input	1 output	Type: I/II	Connector, MC4-Evo 2	1	8000107558
No fuse holder, with switch disconnector							
PVN DC 3I 30 2MPP SW SPD1R CG 11	2 MPP	3 inputs	3 outputs	Type: I / II	Cable gland, PUSH IN connection	1	2890600000
PVN DC 3I 3O 2MPP SW SPD1R WM4 11	2 MPP	3 inputs	3 outputs	Type: I / II	Connector, WM4C	1	268308000
PVN DC 3I 3O 2MPP SPD1R EVO 11	2 MPP	3 inputs	3 outputs	Type: I / II	Cable gland, PUSH IN connection	1	268324000
PVN1M3I9S0FXV101TXPX10	3 MPP	3 inputs	3 outputs	Type: I / II	Connector, WM4C	1	268322000
PVN1M3I9S0FXV100TXPX10	3 MPP	3 inputs	3 outputs	Type: I / II	Cable gland, PUSH IN connection	1	268316000
With fuse holder, no switch disconnector							
PVN1M2I6SXF3V100TXPX10	2 MPP	3 inputs	3 outputs	Type: I / II	Cable gland, PUSH IN connection	1	268304000
PVN1M2I6SXF3V101TXPX10	2 MPP	3 inputs	3 outputs	Type: I / II	Connector, WM4C	1	2683080000
PVN1M1I6SXF3V100TXPX10	1 MPP	6 inputs	6 outputs	Type: I / II	Cable gland, PUSH IN connection	1	273752000
PVN1M1I6SXF3V101TXPX10	1 MPP	6 inputs	6 outputs	Type: I / II	Connector, WM4C	1	273744000
With fuse holder, with switch disconnector							
PVN1M2I6S0F3V100TXPX10	2 MPP	3 inputs	3 outputs	Type: I / II	Cable gland, PUSH IN connection	1	2683060000
PVN1M2I6S0F3V101TXPX10	2 MPP	3 inputs	3 outputs	Type: I / II	Connector, WM4C	1	268310000
PVN1M1I6S0F3V100TXPX10	1 MPP	6 inputs	6 outputs	Type: I / II	Cable gland, PUSH IN connection	1	273753000
PVN1M1I6S0F3V101TXPX10	1 MPP	6 inputs	6 outputs	Type: I / II	Connector, WM4C	1	2737480000
207S0F0C15V100TXPX10PWW	1 MPP	10/8/6*	1 output	Type: I / II	Cable gland	1	800011113
PV 207S0F0C15V100TA1PA10PWW	1 MPP	10/8/6*	1 output	Type: I / II	Cable gland, string monitoring	1	800011113
PV 211S0F0C15V100TXPX10PWW	2 MPP	10/8/6*	1 output	Type: I / II	Cable gland	1	800011113
PV 211S0F0C15V100TA1PA10PWW	2 MPP	10/8/6*	1 output	Type: I / II	Cable gland, string monitoring	1	800011113
*usable inputs depend on the modules used							













#### PV Next combiner boxes for PV systems in residential buildings

Туре	MPP	Inputs per MPP	Outputs per MPP	Surge protection requirement class	Connection	Qty.	Order No.
No fuse holder, no switch-disconnector				•			
PVN1M1I2SXFXV100TXPX11	1 MPP	2 inputs	1 output	Type: I / II	Cable gland, PUSH IN connection	1	27919300
PVN1M1l2SXFXV101TXPX11	1 MPP	2 inputs	1 output	Type: I / II	Connector, WM4C	1	27919200
PVN1M1l2SXFXV102TXPX11	1 MPP	2 inputs	1 output	Type: I / II	Connector, MC4-Evo 2	1	28663000
PVN1M1I2SXFXV200TXPX11	1 MPP	2 inputs	1 output	Type: II	Cable gland, PUSH IN connection	1	27919500
PVN1M1I2SXFXV201TXPX11	1 MPP	2 inputs	1 output	Type: II	Connector, WM4C	1	27919400
PVN1M1I2SXFXV202TXPX11	1 MPP	2 inputs	1 output	Type: II	Connector, MC4-Evo 2	1	28663100
PVN DC 3I 3O 1MPP SPD1R CG 11	1 MPP	3 inputs	3 outputs	Type: I / II	Cable gland, PUSH IN connection	1	28905600
PVN DC 3I 3O 1MPP SPD1R CG 11	1 MPP	3 inputs	3 outputs	Type: I / II	Connector, WM4C	1	28904400
PVN DC 3I 30 1MPP SPD1R EVO 11	1 MPP	3 inputs	3 outputs	Type: I / II	Connector, MC4-Evo 2	1	28903200
PVN DC 2IN/10UTX2 2MPP SPD1R CG 1.1KV	2 MPP	2 inputs	1 output	Type: I / II	Cable gland, PUSH IN connection	1	28663200
PVN DC 2IN/10UTX2 2MPP SPD1R WM4C 1.1KV	2 MPP	2 inputs	1 output	Type: I / II	Connector, WM4C	1	28663400
PVN DC 2IN/10UTX2 2MPP SPD1R EVO 1.1KV	2 MPP	2 inputs	1 output	Type: I / II	Connector, MC4-Evo 2	1	28663600
PVN DC 2IN/10UTX2 2MPP SPD2R CG 1.1KV	2 MPP	2 inputs	1 output	Type: II	Cable gland, PUSH IN connection	1	28663300
PVN DC 2IN/10UTX2 2MPP SPD2R WM4C 1.1KV	2 MPP	2 inputs	1 output	Type: II	Connector, WM4C	1	28663500
PVN DC 2IN/10UTX2 2MPP SPD2R EVO 1.1KV	2 MPP	2 inputs	1 output	Type: II	Connector, MC4-Evo 2	1	28663700
No fuse holder, with switch-disconnector							
PVN DC 3I 30 1MPP SW SPD1R CG 11	1 MPP	3 inputs	3 outputs	Type: I / II	Cable gland, PUSH IN connection	1	28905900
PVN DC 3I 30 1MPP SW SPD1R WM4 11	1 MPP	3 inputs	3 outputs	Type: I / II	Connector, WM4C	1	28904700
PVN DC 3I 30 1MPP SW SPD1R EVO 11	1 MPP	3 inputs	3 outputs	Type: I / II	Connector, MC4-Evo 2	1	28903500
With fuse holder, no switch-disconnector							
PVN1M1l3SXF3V100TXPX10	1 MPP	3 inputs	3 outputs	Type: I / II	Cable gland, PUSH IN connection	1	26830300
PVN1M1l3SXF3V101TXPX10	1 MPP	3 inputs	3 outputs	Type: I / II	Connector, WM4C	1	26830700
With fuse holder, with switch-disconnector							
PVN1M1I3S0F3V100TXPX10	1 MPP	3 inputs	3 outputs	Type: I / II	Cable gland, PUSH IN connection	1	26830500
PVN1M1I3S0F3V101TXPX10	1 MPP	3 inputs	3 outputs	Type: I / II	Connector, WM4C	1	26830900











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#### More designs on request

Our portfolio protects a variety of string inverters available on the market. However, new variants come on the market regularly and sometimes you need a very special design for your application. Therefore, we have set up an efficient process that allows us to always offer the right solution in the usual quality.

Just send us your use case and requirements. We will create a custom-fit design and offer for you.



Click here to get to the contact form: www.weidmueller.com/contact-pv

# **PV Next Fireman Switch**

# Switch off systems in case of fire

Rooftop photovoltaic systems require a disconnection device near the PV modules that is connected to the power supply in the house. This allows the fire brigade to carry out firefighting operations in an emergency without being put at unnecessary risk. The new PV Next fireman switch combines strings in an extremely space-saving way and can reliably disconnect them in the event of a fire. The current flow from the photovoltaic modules is interrupted as soon as the power supply inside or outside the house is switched off. This enables the fire brigade to work safely and extinguish fires more quickly. Unlike other solutions, the switch only consumes electricity during the switching process.

The PV Next Fireman Switch is also available in combination with overvoltage protection on the DC side.







For more information, visit our website: www.weidmueller.com/pvnextfireman

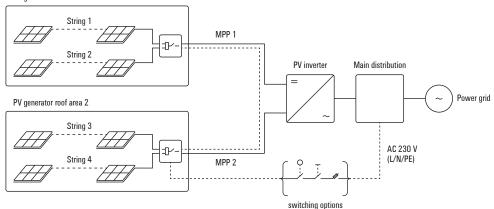


#### Your special advantages

- Fully automatic switch-on and switch-off
- ullet Efficient combination of strings with cable savings of up to 50 %
- Simple and space-saving installation
- Energy consumption only during switch-on and switch-off
- Standard variants available from stock
- Automatic shutdown at temperatures over 100 °C
- Two functions, one compact design: variants with integrated surge protection

#### Possible installation scheme\*

PV generator roof area 1



\*For further installation examples and questions about standard-compliant installation, please contact us: www.weidmueller.com/contact-pv

#### **PV Next Fireman Switch**

Туре	MPP	Inputs per MPP	Outputs per MPP	Current per box	Connection	Qty.	Order No.
PVN1M1I2S1FXVX00TXPX10	1 MPP	2 inputs	1 output	50A	Cable gland, PUSH IN connection	1	2778850000
PVN1M1I2S1FXVX01TXPX10	1 MPP	2 inputs	1 output	34A	Connector, WM4C	1	2778860000
PVN1M1I2S1FXVX02TXPX11	1 MPP	2 inputs	1 output	34A	Connector, MC4-Evo 2	1	2888520000
PVN1M2I4S1FXVX00TXPX10	2 MPP	2 inputs	1 output	2x 50A	Cable gland, PUSH IN connection	1	2778870000
PVN1M2I4S1FXVX01TXPX10	2 MPP	2 inputs	1 output	2x 34A	Connector, WM4C	1	2778880000
PVN1M2I4S1FXVX02TXPX11	2 MPP	2 inputs	1 output	2x 34A	Connector, MC4-Evo 2	1	2888530000
PVC DC 2I 10 4MPP RD WM4 11	4 MPP	2 inputs	1 output	4x 34A	Connector, WM4C	1	8000115472
PVC DC 2I 10 4MPP RD EVO 11	4 MPP	2 inputs	1 output	4x 34A	Connector, MC4-Evo 2	1	8000111429
PVC DC 2I 10 6MPP RD WM4 11	6 MPP	2 inputs	1 output	6x 34A	Connector, WM4C	1	8000115473
PVC DC 2I 10 6MPP RD EVO 11	6 MPP	2 inputs	1 output	6x 34A	Connector, MC4-Evo 2	1	8000111430



#### **PV Next Fireman Switch with SPD**

T V NOXET II OIII UII OVVICOII VVICII	·						
Туре	MPP	Inputs per MPP	Outputs per MPP	Surge protection requirement class	Connection	Qty.	Order No.
PVC DC 2I 10 2MPP RD SPD1R WM4 11	2 MPP	2 inputs	1 output	Type: I / II	Connector, WM4C	1	8000114374
PVC DC 2I 10 2MPP RD SPD1R EVO 11	2 MPP	2 inputs	1 output	Type: I / II	Connector, MC4-Evo 2	1	8000098970
PVC DC 2I 10 4MPP RD SPD1R WM4 11	4 MPP	2 inputs	1 output	Type: I / II	Connector, WM4C	1	8000115470
PVC DC 2I 10 4MPP RD SPD1R EVO 11	4 MPP	2 inputs	1 output	Type: I / II	Connector, MC4-Evo 2	1	8000110665
PVC DC 2I 10 6MPP RD SPD1R WM4 11	6 MPP	2 inputs	1 output	Type: I / II	Connector, WM4C	1	8000115471
PVC DC 2I 10 6MPP RD SPD1R EVO 11	6 MPP	2 inputs	1 output	Type: I / II	Connector, MC4-Evo 2	1	8000111274



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#### More designs on request

Due to the variety of applications, we have not covered all possible fields of application for the emergency shutdown by standard variants. However, due to the modular design of the PV Next product family, we can offer you individual designs for your application at any time. Do you need a Fireman's Switch combined with a surge protection? Do you need a Fireman's Switch with more than 2 MPPs?

Just send us your use case and requirements. We will create a custom-fit design and offer for you.



Click here to get to the contact form: www.weidmueller.com/contact-pv

# **PV Protect Surge Protection**

# Protect PV systems optimally against overvoltages

PV Protect is the solution for optimum protection of the inverter against overvoltages. The ready-to-connect boxes are particularly suitable for retrofitting a surge protection into an existing installation. Depending on requirements, connection is made via WM4C connectors or cable glands with convenient and reliable PUSH IN connection technology.



For more information, visit our website: www.weidmueller.com/pvprotect





#### Your special advantages



#### Wide range of product variants

PV Protect is available with different arrester classes (Type I/II and Type II) and rated voltages (1,000 V/1,500 V). The connection is made either via photovoltaic plug connectors or cable glands – for high flexibility.



#### **Designed to meet various requirements**

PV Protect is compact, robust, and extremely weatherproof. The housing complies with protection class IP67 and protects the electronics inside, even from harsh environmental influences.



#### **Quick mounting**

Thanks to the pre-assembled arresters, the product can be connected quickly and with little effort. The clear marking of the ports eliminates the possibility of incorrect wiring.

#### **PV Protect**

Туре	MPP	Inputs pro MPP	Surge protection requirement class	Connection	Qty.	Order No.
1000 volt versions						
VPUM1I1SXFXV101TXPX10	1 MPP	1 input	Type I+II	Connector, WM4C	1	2764140000
VPUM1I1SXFXV100TXPX10	1 MPP	1 input	Type I+II	Cable gland, PUSH IN connection	1	2755970000
VPUM1I1SXFXV201TXPX10	1 MPP	1 input	Type II	Connector, WM4C	1	2764110000
VPUM1I1SXFXV200TXPX10	1 MPP	1 input	Type II	Cable gland, PUSH IN connection	1	2755950000
VPUM2I2SXFXV101TXPX10	2 MPP	1 input	Type I+II	Connector, WM4C	1	2764150000
VPUM2I2SXFXV100TXPX10	2 MPP	1 input	Type I+II	Cable gland, PUSH IN connection	1	2755980000
VPUM2I2SXFXV201TXPX10	2 MPP	1 input	Type II	Connector, WM4C	1	2764130000
VPUM2I2SXFXV200TXPX10	2 MPP	1 input	Type II	Cable gland, PUSH IN connection	1	2755960000
1500 volt versions						
VPUM1I1SXFXV201TXPX15	1 MPP	1 input	Type II	Connector, WM4C	1	2764160000
VPUM1I1SXFXV200TXPX15	1 MPP	1 input	Type II	Cable gland, PUSH IN connection	1	2755990000
VPUM2I2SXFXV201TXPX15	2 MPP	1 input	Type II	Connector, WM4C	1	2764180000
VPUM2I2SXFXV200TXPX15	2 MPP	1 input	Type II	Cable gland, PUSH IN connection	1	2756000000



#### Y cable / X cable

Туре	Power input 1 / input 2	Power output	Stich connection	Qty.	Order No.
Y-connection cable					
PVHYW-XXW+XX06W+15	WM4C -	WM4C +	WM4C +	1	2814180000
PVHYW+XXW-XX06W-15	WM4C +	WM4C -	WM4C -	1	281419000
PVHYM-XXW+XX06M+15	MC4 -	MC4 +	WM4C +	1	281420000
PVHYM+XXW-XX06M-15	MC4 +	MC4 -	WM4C -	1	281421000
PVHYW-XXPXXX06W+15	WM4C -	WM4C +	Stripped part	1	281422000
PVHYM-M-XXXX6W+15	MC4 -	WM4C+	MC4 -	1	287785000
PVHYM+M+XXXX6W-15	MC4 +	WM4C-	MC4 +	1	287786000
X-connection cable					
PVHXW-W+XX06W+15	WM4C -	WM4C +	WM4C +	1	281424000
PVHXW+W+W-XX06W-15	WM4C +	WM4C -	WM4C -	1	281425000
PVHXM-M-W+XX06M+15	MC4 -	MC4 +	WM4C +	1	281426000
PVHXM+M+W-XX06M-15	MC4 +	MC4 -	WM4C -	1	281427000
PVHXW-W-PXXX06W+15	WM4C -	WM4C +	Stripped part	1	281428000
PVHXW+W+PXXX06M-15	WM4C +	M4C -	Stripped part	1	281429000





# **AC SPD-Box**

# Protect charging stations and PV systems against overvoltage

Protect your string inverter or your wallbox from overvoltages on the AC side of your installation. Especially for cable lengths over 10 metres, a compact and flexible solution is required by standards.

Weidmüller offers a quick and easy to install solution to protect the system components. In addition to protection against overvoltages on the AC side, data lines are also protected against harmful voltages.



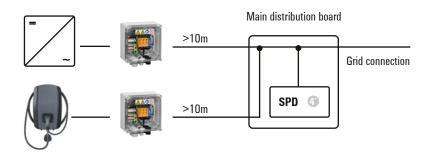
For more information, visit our website: www.weidmueller.com/ac-spd-box





#### Ready-to-install AC surge protection

The AC SPD box is a ready-to-install solution to reliably protect both charging stations from 11-22kW and PV systems against surges. The solution is equipped with Type II AC surge protection and additional surge protection for data cables (RJ45 connection). The compact design with IP65 and a temperature range of -25 to 50 °C is very suitable for outdoor use.



#### \*see selection table on page 6

#### Your advantages

- Quick installation thanks to Push-In technology
- Use for both charging stations and PV systems
- Protection of the data lines against overvoltages

#### **AC SPD-Box**

Туре	Inputs	Outputs	Max. cable diameter	Overvoltage protection	Connection	Order No.
PVC AC 1I 10 SPD2R + RJ45 04	1	1	6mm <sup>2</sup>	Type II	Cable glands	8000104168



# PV Accessories For the easy system installation



#### **PV Tools**

When installing a photovoltaic system, the installer depends on reliable and smooth-running tools. Weidmüller offers a range of professional tools for this purpose.

#### **Stripping tools**

Туре	Cutting	Stripping	Qty.	Order No.
MULTI-STRIPAX PV	2,5, 4.0 and 6 mm <sup>2</sup>	2,5, 4.0 and 6 mm <sup>2</sup>	1	1190490000



#### **Crimping tools**

			Order No.
CTF PV WM4 2,56 mm <sup>2</sup>	Crimping tool for Weidmüller photovoltaic connector \ and identical connectors	VM4 C 1	1222870000



#### **Cutting tools**

Туре	Maximum cutting performance	Copper finely stranded	Aluminium stranded	Qty.	Order No.
KT 12	25 mm <sup>2</sup>	35 mm <sup>2</sup>	16 mm <sup>2</sup>	1	9002660000



#### Multitool

Туре	Description	Qty.	Order No.
MULTITOOL PV SET	Screw PV-Stick; Check cable diameter for PV-Stick; Put on smart lock for PV-Stick; Open cover for PV Next; Replace SPD cartridge for PV Next; Operate PUSH IN connection; Open control cabinet	1	2771530000





#### **PV Connectors**

#### **PV-Stick with SNAP IN connection**

No crimping tool, no lost time, no extra effort - the unique PV-Stick uses tried-and-tested SNAP IN technology. The fastest, easiest and safest way to wire up photovoltaic plants - literally in no time.

#### WM4 C with crimp connection

Outstanding quality and ease of handling due to modern crimp connection.

The WM4 C is suitable for automated assembly as well as for manual installation in the field.

#### **PV-Stick - Photovoltaic connectors - SNAP IN connection**

Туре	Rated voltage (IEC)	Connection cross-section	Continuous operating	Qtv.	Order No.
.,,,,	Rated current	min. / max.	temperature min. / max.	٠,٠	Oradi No.
Socket					
PV-STICK+ Qty.10	1500 V DC / 30 A	4 / 6 mm <sup>2</sup>	-40 °C+85 °C	10	1303450000
PV-STICK+ Qty.50	1500 V DC / 30 A	4 / 6 mm <sup>2</sup>	-40 °C+85 °C	50	1303460000
PV-STICK+ Qty.200	1500 V DC / 30 A	4 / 6 mm <sup>2</sup>	-40 °C+85 °C	200	1303470000
Pin					
PV-STICK- Qty.10	1500 V DC / 30 A	4 / 6 mm <sup>2</sup>	-40 °C+85 °C	10	1303490000
PV-STICK- Qty.50	1500 V DC / 30 A	4 / 6 mm <sup>2</sup>	-40 °C+85 °C	50	1303500000
PV-STICK- Qty.200	1500 V DC / 30 A	4 / 6 mm <sup>2</sup>	-40 °C+85 °C	200	1303510000
PV-Stick Set					
PV-STICK SET	1500 V DC / 30 A	4 / 6 mm <sup>2</sup>	-40 °C+85 °C	1	1422030000





#### WM4 C - Crimp connectors

Туре	Rated voltage / current	Conductor cross-section	Connnection	Qty.	Order No.
Box connectors - housing					
SFGH BOX WM4 C BT	1500 V DC (IEC) / 35 A	4 / 6 mm <sup>2</sup>	M 12 housing cable gland	100	1530640000
BUGH BOX WM4 C BT	1500 V DC (IEC) / 35 A	4 / 6 mm <sup>2</sup>	M 12 housing cable gland	100	1530630000
Field connector housing					
SFGH WM4 C BT	1500 V DC (IEC) / 35 A	4 / 6 mm <sup>2</sup>	M 16 housing cable gland	100	1530700000
BUGH WM4 C BT	1500 V DC (IEC) / 35 A	4 / 6 mm <sup>2</sup>	M 16 housing cable gland	100	1530690000
Crimp contacts					
BUKO WM4 C BT	Socket contact	4 and 6 mm <sup>2</sup> cables	Loose goods for crimping tools	100	1530670000
BUKO WM4 C RL	Socket contact	4 and 6 mm <sup>2</sup> cables	Reel packaged goods for automated crimping	1500	1530770000
SFKO WM4 C BT	Pin contact	4 and 6 mm <sup>2</sup> cables	Loose goods for crimping tools	100	1530680000
SFKO WM4 C RL	Pin contact	4 and 6 mm <sup>2</sup> cables	Reel packaged goods for automated crimping	1500	1530780000







#### Accessories

Туре	Description	Qty.	Order No.
SAFETY-CLIP WM4 Qty.10	Locking clip for PV-Stick prevents opening without tools	10	1328150000
VSSO WM4 C	Sealing cap for protecting PV connectors that are not mated (all connectors)	100	1254870000



#### PV AC output connectors (suitable for Huawei / Sungrow / SMA)

Tric output commercial (cultural for mauricity cultification)					
Туре	Description	Rated voltage / current	Clamping range min. / max.	Qty.	Order No.
PV BSS VAPM 5P M	Box coupling 5 pole	600 V AC / 60 A	0.2mm <sup>2</sup> - 16mm <sup>2</sup>	1	2920100000
PV PS VAPM 5P F	Field connector 5 pole	600 V AC / 60 A	0.2mm <sup>2</sup> - 16mm <sup>2</sup>	1	2920110000
PV BSS DL	Cover	-	-	1	2920120000
PV PS ULTA	Lock	-	-	1	2920130000



#### **PV Labels and Markers**

#### PV Cable marker

Туре	Design	Colour	Kabelbinder Loch	Qty	Order No.
SFX-VT 9/24 MM GE	9 x 24 mm cable marker, with 1 cable tie punch hole, UV-resistant	•	6 x 1.9 mm	1000	2621460000
SFX-VT 9/24 MM WS	9 x 24 mm cable marker, with 1 cable tie punch hole, UV-resistant	0	6 x 1.9 mm	1000	2621470000
SFX-VT 9/24 MM RT	9 x 24 mm cable marker, with 1 cable tie punch hole, UV-resistant	•	6 x 1.9 mm	1000	2799310000
SFX-VT 9/24 MM BL	9 x 24 mm cable marker, with 1 cable tie punch hole, UV-resistant	•	6 x 1.9 mm	1000	2799320000
SFX-VT 11/60 MM GE	11 x 60 mm cable marker, with 2 cable tie punch hole, UV-resistant	•	5.5 x 2mm	1000	2621440000
SFX-VT 11/60 MM WS	11 x 60 mm cable marker, with 2 cable tie punch hole, UV-resistant	0	5.5 x 2 mm	1000	2621450000
SFX-VT 11/60 MM RT	11 x 60 mm cable marker, with 2 cable tie punch hole, UV-resistant	•	5.5 x 2 mm	1000	2900960000
SFX-VT 11/60 MM BL	11 x 60 mm cable marker, with 2 cable tie punch hole, UV-resistant	•	5.5 x 2 mm	1000	2900970000
Ribbon: 2448880000 black					









#### **PV Device marker**

Туре	Design	Colour	Qty	Order No.		
THM PV 89/60 B/DR RT	Device marker, 60 x 89 mm	•	450	2817450000		
THM PV 90/140 WBC	Battery warning, pre-printed warning label	•	200	2986860000		
THM PV 90/140 WFF	Fire brigade warning, pre-printed warning label	•	200	2986850000		
Ribbon: 2005070000 black, 2918	Ribbon: 2005070000 black, 2918800000 white					





#### Device markers endless

Туре	Design	Colour	Qty	Order No.
THM PV EL 30 SI 30M	Device markers, 30 mm	•	1 roll, 30 m	2969100000
THM PV EL 30 WS 30M	Device markers, 30 mm	0	1 roll, 30 m	2969070000
THM PV EL 60 SI 30M	Device markers, 60 mm	•	1 roll, 30 m	2969090000
THM PV EL 60 WS 30M	Device markers, 60 mm	0	1 roll, 30 m	2969060000
THM PV EL 90 GE 30M	Device markers, 90 mm	•	1 roll, 30 m	2817440000
THM PV EL 90 RT 30M	Device markers, 90 mm	•	1 roll, 30 m	2817430000
THM PV EL 90 SI 30M	Device markers, 90 mm	•	1 roll, 30 m	2969080000
THM PV EL 90 WS 30M	Device markers, 90 mm	0	1 roll, 30 m	2969050000
Ribbon: 2005070000 black, 29	18800000 white			





#### Transparent labels

iranoparont labolo				
Туре	Design	Colour	Qty	Order No.
THM PV 15/45 TR	PV-Device markers, 14.6 x 44.1 mm	transparent	450	2969150000
THM PV 18/9.5 TR	PV-Device markers, 17.6 x 8.6 mm	transparent	450	2969180000
THM PV 27/12.5 TR	PV-Device markers, 26.6 x 12.1 mm	transparent	450	2969170000
THM PV 27/18 TR	PV-Device markers, 26.6 x 17.3 mm	transparent	450	2969160000
THM PV 30/60 TR	PV-Device markers, 29.6 x 59.6 mm	transparent	450	2969130000
THM PV 85/54 TR	PV-Device markers, 84.6 x 53.6 mm	transparent	450	2969120000
Ribbon: 2005070000 black				

#### THM MultiMark -Thermal transfer printer

Туре	Design	Qty	Order No.	
THM MULTIMARK	Marking systems, thermal transfer printer, thermal transfer, 300 DPI, MultiMark, shrink sleeves, label rolls	1	2599430000	
THM MMP CUTTER	Cutting kit - for automatic cutting of continuous markers	1	1331600000	
For printing MultiMark markers, shrink sleeves, label rolls, etc.				



#### PV warning label

Туре	Design	Qty	Order No.
TABPACK PV 90/100 WFF	Fire brigade warning, pre-printed warning label, bag	20	2817460000
TABPACK PV 90/100 WBC	Battery warning, pre-printed warning label, bag	20	2817470000



#### Cable tie

Туре	Design	Strength in mm	Qty	Order No.
CB-UVR 98/2,5 BK	Cable tie, 2.5 x 98 mm, polyamide 66, 80 N	1	100	2659310000
CB-UVR 140/3,5 BK	Cable tie, 3.5 x 140 mm, polyamide 66, 130 N	1.1	100	2659320000
CB-UVR 200/3,5 BK	Cable tie, 3.5 x 200 mm, polyamide 66, 130 N	1.2	100	2659330000
CB-UVR 200/4,8 BK	Cable tie, 4.8 x 200 mm, polyamide 66, 220 N	1.35	100	2659340000
CB-UVR 290/4,5 BK	Cable tie, 4.5 x 290 mm, polyamide 66, 220 N	1.4	100	2659350000
CB-UVR 365/7,5 BK	Cable tie, 7.5 x 365 mm, polyamide 66, 540 N	1.8	100	2659360000
GD-0VII 303/ 7,3 DK	Cable lie, 7.3 x 303 lillil, polyallilue 00, 340 N	1.0	100	20333000





#### **PV Fuses**

The gPV cylindrical fuse cartridges are designed to provide compact, safe and economical protection of photovoltaic modules. They protect against both overloads and short circuits.

#### When are fuses required?

According to IEC 62548, fuses are required if the reverse current of the module is exceeded. This is calculated as follows:

String current x 1.25 x (number of strings -1) = Larger max. reverse current, then fuse holder for + and -.

#### Which size should I use?

Multiply the ISC value of the module by 1.5.

#### Example:

8.99 A x 1.5 = 13.485 rounded up to 15 A fuse cartridges

#### 10x38 gPV fuse cartridges with silver-plated contacts for PV applications

3 3	•	- ''			
Туре	Voltage / Current	Power loss	Switching capacity	Qty.	Order No.
FUSE 10X38 1A 1000 VDC GPV	1000 V DC / 1 A	2.2 W	30 kA	10	2783160000
FUSE 10X38 2A 1000 VDC GPV	1000 V DC / 2 A	2.4 W	30 kA	10	2783170000
FUSE 10X38 3A 1000 VDC GPV	1000 V DC / 3 A	2.65 W	30 kA	10	2783180000
FUSE 10X38 4A 1000 VDC GPV	1000 V DC / 4 A	2.7 W	30 kA	10	2783190000
FUSE 10X38 5A 1000 VDC GPV	1000 V DC / 5 A	0.76 W	30 kA	10	2783200000
FUSE 10X38 6A 1000 VDC GPV	1000 V DC / 6 A	3.2 W	30 kA	10	2783210000
FUSE 10X38 8A 1000 VDC GPV	1000 V DC / 8 A	1.45 W	30 kA	10	2783220000
FUSE 10X38 10A 1000 VDC GPV	1000 V DC / 10 A	1.66 W	30 kA	10	2783230000
FUSE 10X38 12A 1000 VDC GPV	1000 V DC / 12 A	1.57 W	30 kA	10	2783240000
FUSE 10X38 15A 1000 VDC GPV S	1000 V DC / 15 A	1.65 W	33 kA	10	2827970000
FUSE 10X38 16A 1000 VDC GPV S	1000 V DC / 16 A	1.84 W	10 kA	10	2837520000
FUSE 10X38 20A 1000 VDC GPV S	1000 V DC / 20 A	2 W	10 kA	10	2827980000
FUSE 10X38 25A 1000 VDC GPV S	1000 V DC / 25 A	3,5 W	10 kA	10	2827990000
FUSE 10X38 30A 1000 VDC GPV S	1000 V DC / 30 A	3,8 W	10 kA	10	2828000000





#### **PV Lightning and Surge Protection**

PV systems are directly exposed to environmental influences because they are always installed in locations unprotected from the weather. For this reason, the probability of lightning strikes and resulting overvoltage is high. The components of unprotected PV systems repeatedly suffer major damage.



The right combiner box for your inverter type in just three steps. Find out more on p. 6.

#### DC surge arrester

#### DC protection for 600 V applications

•	- ''					
Туре	Туре	Version	MPP	Discharge current limp / Imax	Qty.	Order No.
VPU PV I+II 3 600 E	+	without remote signalling contact	1 MPP	6,25 kA / 40 kA	1	2857030000
VPU PV I+II 3 R 600 E	+	with remote signalling contact	1 MPP	6,25 kA / 40 kA	1	2857040000
VPU PV II 3 600	II	without remote signalling contact	1 MPP	- / 50 kA	1	2857060000
VPU PV II 3 R 600	II	with remote signalling contact	1 MPP	- / 50 kA	1	2857070000



#### DC protection for 1000 V applications

Туре	Туре	Version	MPP	Discharge current limp / Imax	Qty.	Order No.
VPU PV I+II 3 1000	+	without remote signalling contact	1 MPP	6,25 kA / 40 kA	1	2530610000
VPU PV I+II 3 R 1000	+	with remote signalling contact	1 MPP	6,25 kA / 40 kA	1	2530620000
VPU PV I+II 5 1000	+	without remote signalling contact	2 MPP	5 kA / 40 kA	1	2856440000
VPU PV I+II 5 R 1000	+	with remote signalling contact	2 MPP	5 kA / 40 kA	1	2856490000
VPU PV II 3 1000	II	without remote signalling contact	1 MPP	- / 40 kA	1	2530550000
VPU PV II 3 R 1000	II	with remote signalling contact	1 MPP	- / 40 kA	1	2530180000
VPU PV II 5 1000	II	without remote signalling contact	2 MPP	- / 40 kA	1	2856500000
VPU PV II 5 R 1000	II	with remote signalling contact	2 MPP	- / 40 kA	1	2857020000



#### DC protection for 1500 V applications

•	- ''					
Туре	Туре	Version	MPP	Discharge current limp / Imax	Qty.	Order No.
VPU PV I+II 3 1500	+	without remote signalling contact	1 MPP	5 kA / 30 kA	1	2530580000
VPU PV I+II 3 R 1500	+	with remote signalling contact	1 MPP	5 kA / 30 kA	1	2530590000
VPU PV II 3 1500	II	without remote signalling contact	1 MPP	- / 30 kA	1	2530640000
VPU PV II 3 R 1500	II	with remote signalling contact	1 MPP	- / 30 kA	1	2530650000



#### Arresters for printed circuit boards

Туре	Туре	Version	Rated voltage U₅	Discharge current limp / Imax	Qty.	Order No.
VPCB PV I+II R 600 E	+	with remote signalling contact	600 V	6,25 kA / 40 kA	1	2857100000
VPCB PV I+II 1000	+	without remote signalling contact	1100 V	6,25 kA / 40 kA	1	2665740000
VPCB PV I+II M 1000	+	without remote signalling contact	1100 V	6,25 kA / 40 kA	1	2665750000
VPCB PV I+II R 1000	+	with remote signalling contact	1100 V	6,25 kA / 40 kA	1	2665760000
VPCB PV I+II R M 1000	+	with remote signalling contact	1100 V	6,25 kA / 40 kA	1	2665770000
VPCB PV II R 600	II	with remote signalling contact	600 V	- / 40 kA	1	2857090000
VPCB PV II 1000	II	without remote signalling contact	1100 V	- / 40 kA	1	2665680000
VPCB PV II R 1000	II	with remote signalling contact	1100 V	- / 40 kA	1	2665690000



#### **AC** surge arresters

#### AC protection Type I/II for 400 V applications

1 /1 -					
Туре	Continuous current / lightning impulse current (limp)	Version	Network	Qty.	Order No.
Type I arrester - pre-counter range - 2					
VPU AC I 3 275/25 LCF S	275 V AC / 25 kA	without remote signalling contact, leakage current free	TN-C	1	2726740000
VPU AC I 3 R 275/25 LCF S	275 V AC / 25 kA	with remote signalling contact, leakage current free	TN-C	1	2726750000
VPU AC I 3+1 275/25 LCF S 2PE	275 V AC / 25 kA	without remote signalling contact, leakage current free	TN-C-S, TN-S, TT	1	2726760000
VPU AC I 3+1 R 275/25 LCF S 2PE	275 V AC / 25 kA	with remote signalling contact, leakage current free	TN-C-S, TN-S, TT	1	2726770000
VPU AC I 4 275/25 LCF S	275 V AC / 25 kA	without remote signalling contact, leakage current free	TN-C-S, TN-S	1	2726780000
VPU AC I 4 R 275/25 LCF S	275 V AC / 25 kA	with remote signalling contact, leakage current free	TN-C-S, TN-S	1	2726790000
Type I arrester - pre-counter range - 3	300 V AC / 12.5 kA				
VPU AC I 3 300/12.5 LCF	300 V AC / 12.5 kA	without remote signalling contact, leakage current free	TN-C	1	2636970000
VPU AC I 3 R 300/12.5 LCF	300 V AC / 12.5 kA	with remote signalling contact, leakage current free	TN-C	1	2636980000
VPU AC I 3+1 300/12.5 LCF	300 V AC / 12.5 kA	without remote signalling contact, leakage current free	TN-C-S, TN-S, TT	1	2636910000
VPU AC I 3+1 R 300/12.5 LCF	300 V AC / 12.5 kA	with remote signalling contact, leakage current free	TN-C-S, TN-S, TT	1	2636920000
Type I arrester - post-counter range -	300 V AC / 12.5 kA				
VPU AC I 3 300/12.5	300 V AC / 12.5 kA	without remote signalling contact	TN-C	1	2591440000
VPU AC I 3 R 300/12.5	300 V AC / 12.5 kA	with remote signalling contact	TN-C	1	2591450000
VPU AC I 3+1 300/12.5	300 V AC / 12.5 kA	without remote signalling contact	TN-C-S, TT, IT with N, IT without N	1	2591460000
VPU AC I 3+1 R 300/12.5	300 V AC / 12.5 kA	with remote signalling contact	TN-C-S, TT, IT with N, IT without N	1	2591470000
VPU AC I 4 300/12.5	300 V AC / 12.5 kA	without remote signalling contact	TN-C-S, TN-S	1	2591420000
VPU AC I 4 R 300/12.5	300 V AC / 12.5 kA	with remote signalling contact	TN-C-S, TN-S	1	2591430000



#### AC protection Type I/II for 400 V / 40 mm busbar

Туре	Continuous current / lightning impulse current (I <sub>imp</sub> )	Version	Network	Qty.	Order No.
12.5 kA - without phase tap					
VPU ZPA S I 3 300/12,5	300 V AC / 12.5 kA	without remote signalling contact, leakage current free	TN-C	1	2830870000
VPU ZPA S I 3+1 300/12,5	300 V AC / 12.5 kA	without remote signalling contact, leakage current free	TN-S, TT, IT	1	2830900000
12.5 kA - with phase tap for L1					
VPU ZPA S I 3+1 RA 300/12,5	300 V AC / 12.5 kA	with remote signalling contact, leakage current free	TN-S, TT, IT	1	2830920000
7.5 kA - without phase tap					
VPU ZPA S I 3 300/7,5	300 V AC / 7.5 kA	without remote signalling contact, leakage current free	TN-C	1	2830930000
VPU ZPA S I 3+1 300/7,5	300 V AC / 7.5 kA	without remote signalling contact, leakage current free	TN-S, TT, IT	1	2830960000
7.5 kA - with phase tap for L1					
VPU ZPA S I 3+1 RA 300/7,5	300 V AC / 7.5 kA	with remote signalling contact, leakage current free	TN-S, TT, IT	1	2830980000



#### AC protection Type II for 400 V applications

Туре	Continuous current / discharge current (I <sub>max</sub> )	Version	Network	Qty.	Order No.
Type I arrester - post-counter ran	ge - 300 V AC / 12.5 kA				
VPU AC II 3 300/50	300 V AC / 50 kA	without remote signalling contact	TN-C	1	259116000
VPU AC II 3 R 300/50	300 V AC / 50 kA	with remote signalling contact	TN-C	1	259117000
VPU AC II 3+1 300/50	300 V AC / 50 kA	without remote signalling contact	TN-C-S, TN-S, TT, IT	1	259108000
VPU AC II 3+1 R 300/50	300 V AC / 50 kA	with remote signalling contact	TN-C-S, TN-S, TT, IT	1	259109000
VPU AC II 4 300/50	300 V AC / 50 kA	without remote signalling contact	TN-C-S, TN-S	1	259114000
VPU AC II 4 R 300/50	300 V AC / 50 kA	with remote signalling contact	TN-C-S, TN-S	1	259115000
Type II arrester with integrated f	fuse - post-counter range - 300 V AC	/ 50 kA			
VPU AC II F 3 300/40	300 V AC / 50 kA	without remote signalling contact	TN-C	1	282760000
VPU AC II F 3 R 300/40	300 V AC / 50 kA	with remote signalling contact	TN-C	1	280741000
VPU AC II F 3+1 300/40	300 V AC / 50 kA	without remote signalling contact	TN-C-S, TN-S, TT, IT	1	282763000
VPU AC II F 3+1 R 300/40	300 V AC / 50 kA	with remote signalling contact	TN-C-S, TN-S, TT, IT	1	280744000
VPU AC II F 4 300/40	300 V AC / 50 kA	without remote signalling contact	TN-C-S, TN-S	1	282761000
VPU AC II F 4 R 300/40	300 V AC / 50 kA	with remote signalling contact	TN-C-S, TN-S	1	280742000



#### AC protection Type I/II for 800 V applications

Туре	Continuous current / discharge current (I <sub>max</sub> )	Version	Network	Qty.	Order No.
VPU AC I 3+MOV R 950/12.5	950 V AC / 50 kA	with remote signalling contact	TN-C, IT without N	1	2845570000



#### V-DATA - Data protection arrester

·				
Туре	Suitable for:	Connection	Qty.	Order No.
VDATA CAT6	Cat. 5 (up to 100 MHz) and Cat. 6 to 250 MHz (Class E), PoE (according to IEEE 802.3af) and PoE+ (according to IEEE 802.3at)	RJ45	1	1348590000





You can find more information about our accessories and other articles on our website: www.weidmueller.com/pv-accessories



#### **Emergency power box for Fronius Primo GEN24 Plus**

Increasingly, homeowners want to be supplied with electricity from their own PV system even in the event of a power cut. The inverter manufacturer Fronius therefore offers the option of supplying consumers in the event of a power cut in its Primo GEN24 Plus product range. Weidmüller has developed the appropriate emergency power box to connect the necessary loads quickly and safely if required.

The Fronius Primo GEN24 Plus is connected to the emergency power box from Weidmüller. If there is a failure in the grid, this hybrid inverter recognises this condition and activates the connection to the emergency power box. Now residents can use various consumers such as a refrigerator or charging cables for mobile phones to this box.

It is possible to use the PV electricity from the roof directly or feed it into a battery. At the same time, the electricity from the battery can be used if no solar power is generated. This simple solution does not require a separate disconnection device after the grid connection point to be installed.



(A) 1 phase cable (B) Emergency power box (C) 1 phase cable with plug

#### Your advantages

- Suitable solution for the Primo GEN24 Plus
- Quick and easy installation
- Accessories already included

#### **Emergency power box**

Order No.	Electrical socket	Connection cable	Туре
8000108185	Type F CEE 7/3 Electrical socket, Schuko	1 phase cable to connect to the string inveter	PVC AC NOTSTROMBOX TYPE F CEE 7/3
8000101331	Type 23 Electrical socket	1 phase cable to connect to the string inveter	PVC AC NOTSTROMBOX TYPE 23
	Type 23 Electrical socket	1 phase cable to connect to the string inveter	PVC AC NOTSTROMBOX TYPE 23





You can find more information about our accessories and other articles on our website: www.weidmueller.com/pv-accessories

# **FAQs – Frequently Asked Questions about the Installation**

#### What are the special features of PV Next combiner boxes and how do I find the right variant?

For a PV system on the roof, a GAK approved in accordance with IEC 61439-2 is required to protect the system against overvoltage. The GAK PV Next also offers additional functions, such as the bundling of strings for reduced cabling effort. Depending on the inverter of your PV system, a suitable variant of the GAK is required. You can easily find the right variant using the selection guide on our website.

#### How do you protect PV installations against lightning strikes?

The overvoltage protection inside a PV combiner box (DC side of the installation) is one part of the lightning protection system (LPS) of a building and is mandatory according to EN 51643-32 in the EU since 2019. It is used to protect your PV system and provides additional overcurrent protection for the strings in the event of a module failure.

#### When are DC fuses mandatory to install?

Depending on the kind of photovoltaic installation, a combiner box with fuses is required. According to the IEC 62548:2016, fuses are mandatory if the maximum return current is higher than the return current of the module.



All technical details, our fact sheets and other frequently asked questions can be found on our website:

www.weidmueller.com/pv-FAQ

#### More tips for an easy PV installation:





#### Weidmüller - Your partner in Smart Industrial Connectivity

As experienced experts we support our customers and partners around the world with products, solutions and services in the industrial environment of power, signal and data. We are at home in their industries and markets and know the technological challenges of tomorrow. We are therefore continuously developing innovative, sustainable and useful solutions for their individual needs. Together we set standards in Smart Industrial Connectivity.

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Made in Germany



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Personal support can be found on our website: www.weidmueller.com/contact

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